Serial No. 10/540,792

Reply to Office Action of March 19, 2009

**Amendments to the Drawings:** 

Figure 2 has been amended to include "prime" symbols to more properly

distinguish between local oscillator signals. No new matter has been included in

FIG. 2.

Figure 3 has been amended to include "prime" symbols to more properly

distinguish between local oscillator signals. No new matter has been included in

FIG. 3.

Attachment:

Replacement Sheets

**Annotated Sheets Showing Changes** 

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### **REMARKS/ARGUMENTS**

Claims 1-12 are pending in this application. All claims are rejected. By this amendment claims 2, 10, and 11 are amended. No claims are cancelled. Claims 1-12 remain in this case. Further consideration is requested in view of the above claim amendments and the following remarks.

## Rejections under 35 USC § 112, First Paragraph

- 1. The previous rejection, which is still maintained, has been addressed by the clarity amendments to FIGS. 2 and 3. The local oscillator designations have been separated between input and output by the addition of a differentiating "prime" symbol as shown in FIGS. 2 and 3. No new matter has been added to FIGS. 2 and 3.
- 2. The current rejection regarding claims 2 and 11 has been addressed by making the Examiner's suggested amendments. No new matter has been added to claims 2 and 11.

#### Rejections under 35 USC § 101

Claims 1-9 and 12 stand rejected under 35 USC 101 because the claimed invention is non-statutory as being directed to software per se. This rejection is respectfully traversed. Claims are not defined by assertions about additional embodiments in the specification, but rather the words of the claims themselves. Claim 1 claims only a hardware embodiment of the invention as evidenced by the recitation of "a single RF chip" and "a single baseband chip". As is known in the art, a "chip" is an integrated circuit, see for example the <a href="https://www.wikipedia.com">www.wikipedia.com</a> entry on this point:

In electronics, an integrated circuit (also known as IC, microcircuit, microchip, silicon chip, or chip) is a miniaturized electronic circuit (consisting mainly of semiconductor devices, as well as passive components) that has been manufactured in the surface of a thin substrate of semiconductor material. Integrated circuits are used in almost all electronic equipment in use today and have revolutionized the world of electronics. (emphasis added)

An integrated circuit is precisely the kind of hardware "machine" that is contemplated by KSR v. Teleflex, 550 U.S. 398 (2007). The invention is tied to and the claims limited by this "machine" hardware embodiment. Claim 1, therefore, defines acceptable statutory subject matter. The remaining rejected dependent claims also define acceptable statutory subject matter as being dependent upon claim 1.

Claim 10 is similarly allowable, as it has been amended to include the same hardware limitations as appear in claim 1. Amended claim 10 does not contain any new matter as proper support is found in at least claim 1. Claim 11 defines acceptable statutory subject matter as being dependent upon claim 10.

### Rejections under 35 USC § 103

Claim 10 and 11 stand rejected under 35 USC 103(a) as being unpatentable over Shi et al (US 6,332,083) in view of Azenkot et al (US 6,791,995). The rejection of claims 10 and 11 is respectfully traversed.

Claim 10 has been amended as described above to claim a particular chip partitioning that is neither taught nor suggested in the combination of Shi et al in view of Azenkot et al. In particular, as Shi et al does not

disclose "despreading" as admitted by the Examiner, it is impossible to know if the correct chip partitioning as claimed has been achieved.

For the reasons given above, claims 10 and 11 are deemed to be patentable over the combination of Shi et al in view of Azenkot et al.

Claims 1-2, 4, 5, 8, 9, and 12 stand rejected under 35 USC 103(a) as being unpatentable over Shi et al in view of Azenkot et al and Pau (US 6,735,426). The rejection of claims 1-2, 4, 5, 8, 9, and 12 is respectfully traversed.

Pau is characterized by the Examiner as teaching a transceiver that can be implemented in two chips. However, this is not what is claimed in claim 1. Claim 1 claims a particular chip portioning in which, for example, the spreading and despreading functions reside in separate chips. Pau does not have any teachings that the spreading and despreading functions reside in separate chips as claimed.

Therefore, claim 1 is deemed patentable over the combination of cited art and allowable under 35 USC 103(a). The remaining rejected claims are deemed to be allowable as being dependent upon allowable claim 1 for the reasons given above.

Claims 3 stands rejected under 35 USC 103(a) as being unpatentable over Shi et al in view of Azenkot et al and Pau, and further in view of Tiirola et al (US 6,529,545). The rejection of claim 3 is respectfully traversed. Claim 3 is deemed to be allowable as being dependent upon allowable claim 1 for the reasons given above.

#### Conclusion

In view of all of the above, the claims are now believed to be allowable and the case in condition for allowance which action is

6/2, 2009

respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicant's attorney at the telephone number listed below.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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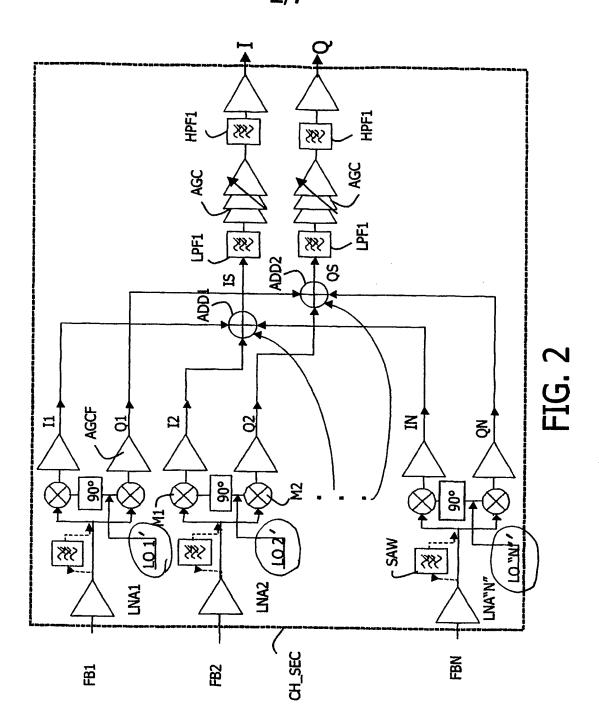
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S/N: 10/540,792 Docket No.: STW-FR020145US (B08/4779 EXT QT US)

Title: MULTIMODE RECEIVER
Inv: Dominique Brunel, Laurent Noel

Annotated Sheet

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S/N: 10/540,792 Docket No.: STW-FR020145US (B08/4779 EXT QT US)

Title: MULTIMODE RECEIVER
Inv: Dominique Brunel, Laurent Noel
Annotated Sheet

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